

## REMARKS

Claims 1, 14, 24, 36 and 41 are amended. Claims 1-41 are pending and remain for consideration. In view of the following amendments and remarks, Applicant respectfully solicits allowance of the application and furtherance onto issuance.

## § 102 and §103 Rejections

Claims 1-25 and 27-39 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,379,432 to Orton. Further, claims 26 and 40 stand rejected under 35 U.S.C. § 103(a) as being obvious over Orton in view of U.S. Patent No. 5,752,027 to Familiar.

## The Claims

**Claim 1** has been amended and, as amended recites a method of factoring operating system functions comprising [amended language appears in bold italics below]:

- defining criteria that governs how functions of an operating system are to be factored into one or more groups;
- factoring the functions into one or more groups based upon the criteria; and
- associating groups of functions with programming objects that have data and methods, wherein the methods correspond to the operating system functions effective to provide an object oriented operating system, *the programming objects being configured to be instantiated throughout a remote computing system.*

9 As an aside, Applicant respectfully points out that this line of reasoning is  
10 in direct contravention with the guidance the Federal Circuit has provided with  
11 respect to making out a *prima facie* case of obviousness. Orton neither discloses  
12 nor suggests the subject matter of claim 1, as amended. Accordingly, for at least  
13 this reason, this claim is allowable.

14       **Claims 2-13** depend either directly or indirectly from claim 1 and are  
15       allowable as depending from an allowable base claim. These claims are also  
16       allowable for their own recited features which, in combination with those recited  
17       in claim 1, are neither shown nor suggested in the references of record, either  
18       singly or in combination with one another.

19        Further, with respect to claim 7 which recites “instantiating a plurality of  
20      programming objects across a machine boundary”, the Office notes that Orton is  
21      silent in this regard. The Office goes on to state, in a conclusory fashion, that it  
22      would have been obvious to make this modification to provide objects that  
23      communicate across machine boundaries. Applicant strongly disagrees with and  
24      traverses the Office’s conclusory and unsubstantiated argument.

1           In order to modify a particular reference under §103(a), the Federal Circuit,  
2 through its body of case law, has stated that there must be *particular findings* as to  
3 why the skilled artisan would be motivated to make such a modification without  
4 any knowledge of Applicant's disclosure. Here, the Office has not made any  
5 particular findings whatsoever, but has simply used Applicant's disclosure to  
6 make a hindsight, conclusory and unsupported statement with respect to the  
7 subject matter recited in claim 7. Accordingly, the Office has failed to establish a  
8 *prima facie* case of obviousness and as such, this claim is allowable.

9           **Claim 14** has been amended and, as amended recites a method of factoring  
10 operating system functions comprising [amended language appears in bold italics  
11 below]:

- 12           • factoring a plurality of operating system functions that are used in  
13 connection with operating system resources into first groups based  
14 upon first criteria;
- 15           • factoring the first groups into individual sub-groups based upon  
16 second criteria; and
- 17           • assigning each sub-group to its own programming object interface,  
18 wherein a programming object interface represents a particular  
19 object's implementation of its collective methods effective to  
provide an object-oriented operating system, *wherein individual  
objects having associated programming object interfaces are  
configured to be instantiated throughout a remote computing  
system.*

20  
21           As noted above, Orton neither discloses nor suggests a method that factors  
22 operating system functions, as recited in this claim, where *individual objects  
having associated programming object interfaces are configured to be  
instantiated throughout a remote computing system.* Accordingly, for at least  
23 this reason, this claim is allowable.

1           **Claims 15-23** depend either directly or indirectly from claim 14 and are  
2 allowable as depending from an allowable base claim. These claims are also  
3 allowable for their own recited features which, in combination with those recited  
4 in claim 14, are neither shown nor suggested in the references of record, either  
5 singly or in combination with one another.

6           **Claim 24** has been amended and, as amended recites a method of factoring  
7 operating system functions comprising [amended language appears in bold italics  
8 below]:

- 9           • factoring a plurality of operating system functions into interface  
10 groups based upon the resources with which a function is associated;
- 11           • factoring the interface groups into interface sub-groups based upon  
each function's use of a handle that represents a resource; and
- 12           • organizing the interface sub-groups so that at least one of the  
13 interface sub-groups inherits from at least one other of the interface  
sub-groups, *individual interface sub-groups being associated with  
individual programming objects that can be instantiated  
throughout a remote computing system.*

15  
16           Orton neither discloses nor suggests a method that factors operating system  
17 functions as recited in this claim, as amended. Accordingly, for at least this  
18 reason, this claim is allowable.

19           **Claims 25-28** depend from claim 24 and are allowable as depending from  
20 an allowable base claim. These claims are also allowable for their own recited  
21 features which, in combination with those recited in claim 24, are neither shown  
22 nor suggested in the references of record, either singly or in combination with one  
23 another. Additionally, given the allowability of claim 24, the §103(a) rejection of  
24  
25

1 claim 26 over the combination with Familiar is not seen to add anything of  
2 significance.

3 **Claim 29** recites an operating system application program interface  
4 embodied on a computer-readable medium comprising a plurality of object  
5 interfaces. Each object interface is recited to be associated with an object that  
6 includes one or more methods that are associated with and can call functions of an  
7 operating system that does not comprise the object interfaces. Individual objects  
8 are recited to be configured to be instantiated in process, locally, or *remotely*.

9 In the present Office Action, the Office does not address the recited subject  
10 matter that appears in the bold italics above. Regardless, nowhere does Orton  
11 disclose or even suggest any such subject matter. Accordingly, this claim is  
12 allowable.

13 **Claims 30-35** depend either directly or indirectly from claim 29 and are  
14 allowable as depending from an allowable base claim. These claims are also  
15 allowable for their own recited features which, in combination with those recited  
16 in claim 29, are neither shown nor suggested in the references of record, either  
17 singly or in combination with one another.

18 **Claim 36** has been amended and, as amended recites an operating system  
19 comprising [amended language appears in bold italics below]:

20

- 21 • a plurality of programming objects having interfaces, wherein the  
22 programming objects represent operating system resources, and  
23 wherein the interfaces define methods that are organized in  
24 accordance with whether they create an operating system resource or  
not;
- 25 • wherein the programming objects are configured to be called either  
directly or indirectly by an application; and

- 1     • wherein the methods are configured to call operating system
- 2     functions responsive to being called directly or indirectly by an
- 3     application;
- 4     • *said programming objects being configured to be instantiated*
- 5     *throughout a remote computing system.*

6  
7     Orton neither discloses nor suggests any such subject matter. Accordingly  
8     for at least this reason, this claim is allowable.

9  
10    Claims 37-40 depend from claim 36 and are allowable as depending from  
11    an allowable base claim. These claims are also allowable for their own recited  
12    features which, in combination with those recited in claim 36, are neither shown  
13    nor suggested in the references of record, either singly or in combination with one  
14    another. In addition, given the allowability of claim 36, the rejection of claim 40  
15    under §103(a) over the combination with Familiar is not seen to add anything of  
16    significance.

17    Claim 41 has been amended and, as amended recites a method comprising  
18    [amended language appears in bold italics below]:

- 19     • defining a plurality of programming object interfaces that define
- 20     methods that correspond to the operating system functions, wherein
- 21     programming objects that support the interfaces are callable either
- 22     directly by an application that makes object-oriented calls, or
- 23     indirectly by an application that makes function calls, *said*
- 24     *programming objects being configured to be instantiated*
- 25     *throughout a remote computing system;*
- calling a programming object interface either directly via an object-oriented call, or indirectly via an indirection that transforms a function call into an object-oriented call; and
- responsive to said calling, calling an operating system function with a method of the programming object that supports said programming object interface.

1 Orton neither discloses nor suggests the subject matter of this claim as  
2 amended. Accordingly, for at least this reason, this claim is allowable.

## Conclusion

5 All of the claims are in condition for allowance. Accordingly, Applicant  
6 requests a Notice of Allowability be issued forthwith. If the Office's next  
7 anticipated action is to be anything other than issuance of a Notice of Allowability,  
8 Applicant respectfully requests a telephone call for the purpose of scheduling an  
9 interview.

Respectfully Submitted,

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